

IN THE CLAIMS

Please amend claim 1 as follows:

--1(twice amended). A filter apparatus comprising:

a main filter which has an input terminal and an output terminal and whose characteristics is set by an external control signal;
a subordinate filter having substantially the same construction as that of said main filter;

a signal generator for generating a signal of a frequency equal to a cut-off frequency of each of said main filter and said subordinate filter and supplying it to said subordinate filter;

a phase difference detector for detecting a phase difference between the signal generated from said signal generator and an output signal of said subordinate filter and outputting a phase difference signal;

a reference signal generator for generating a reference signal corresponding to an ideal value of the phase difference detected by said phase difference detector; and

an error detector for detecting an error between said phase difference signal and said reference signal and supplying an error signal as said external control signal to said main filter and said subordinate filter;

whereby said reference signal is set to a value based on an amount of phase shift that is caused when a signal having a frequency equal to the cut-off frequency of said subordinate filter is supplied to said subordinate filter.--